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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,932	07/01/2003	Takahiko Tanahashi	Y-218	4638

802 7590 10/18/2004

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EXAMINER
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DESTA, ELIAS

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/613,932

**Applicant(s)**

TANAHASHI ET AL.

**Examiner**

Elias Desta

**Art Unit**

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## Detailed Action

### Drawing Objection

1. The drawing is objected to because the following minor informalities:
  - Fig. 16 should have subsection, such as “a” and “b” or the second embodiment (the graph shown) should be labeled as Fig. 17.

### Claim rejection – 35 U.S.C. 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-5 are directed to non-statutory subject matter, because the claims do not recite any form of technology.

The claims are directed to an abstract idea without practical application, and thus the invention does not fall within the definition of technological arts. The abstract idea expressed in the claims does not become a technological art merely by recitation in the claim of “performing”, “dividing”, and/or “recovering”.

The Examiner observes that neither the specification nor the claims discuss the use of any technology with respect to the claimed invention.

See Diamond v. Diehr, 450 U.S. 175, 185, 209 USPQ 1, 7(1981); In re Warmerdam, 33 F.3d 1354, 1357, 31 USPQ2d 1754, 1756(Fed. Cir. 1994); AT & T Corp. v. Excel Communications Inc., 172 F.3d 1352, 1355, 50 USPQ2d 1447, 1449-50(Fed. Cir. 1999); and State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1374-75, 47 USPQ2d 1596, 1602(Fed. Cir. 1998)

### Conclusion

4. Citation of pertinent prior art:

- a. Dimas et al. (U.S. Patent 6,512,999) teaches an apparatus and method for simulating turbulence.
- b. Weiler et al. (IEEE Article, 'Hardware-Software-Balance Re-sampling for the Interactive Visualization of Unstructured Grids') teaches a method of re-sampling unstructured volume data on Cartesian grids for achieving interactive visualization.
- c. Kaup (IEEE Article, 'Object-Based Texture Coding of Moving Video in MPEG-4') teaches segment-based coding for MPEG-4 standardization.
- d. Clark et al. (IEEE Article, 'Stationary, Non Stationary, and Hybrid Interactive Method of Moments Solution Scheme') teaches

sparse iterative method (SIM) in order to alleviate the problem associated with segment renumbering.

e. Minyard et al. (IEEE Article, 'Partitioning and Dynamic Load Balancing of Adaptive Hybrid Grids for Large-Scale Turbulent Flow Simulations') teaches three-dimensional prismatic/tetrahedral meshes.

f. Yee et al. (IEEE Article, 'Conformal Hybrid Finite Difference Time Domain and Finite Volume') teaches a hybrid method that combines finite difference time domain and finite volume time domain.

g. Wang et al. (AIAA Article, 'A  $2^N$  Tree Based Automated Viscous Cartesian Grid Methodology for Feature Capturing') teaches unstructured grid-based CFD algorithm for automating fluid flow simulation.

h. Ham et al. (JOCF Article, 'A Cartesian Grid Method with Transient Anisotropic Adaptation') teaches grid generation process and the ease with which local refinement of the grid with recursive cell-splitting operations.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Thu (8:30-7:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1750

Elias Desta  
Examiner  
Art Unit 2857

-ed

October 6, 2004

